

CLAIMS

1. A high contrast projection, depixelating, or the like screen, comprising a primary matrix of a first, transparent material, a first quantity of discrete bodies of a second transparent material of a refractive index different from the primary matrix material distributed in said primary matrix and a second quantity of discrete light absorbing or filtering bodies distributed in said primary matrix.
2. A screen according to claim 1 wherein the bodies of said second quantity each comprise a matrix of a transparent material incorporating light absorbing or opaque particles.
3. A screen according to claim 1 wherein the bodies of said second quantity each comprise a transparent material incorporating a light filtering dye.
4. A screen according to claim 2 or claim 3 wherein the transparent material or matrix material of said second quantity of discrete bodies has a different refractive index than from said primary matrix.
5. A screen according to claim 4 wherein the materials of said first and second quantity have higher refractive indices than said primary matrix.
6. A high contrast projection, depixelating, or the like screen, comprising discrete bodies of a first material and refractive index in a matrix of a second material and refractive index, one said material being transparent and the other being light-filtering.

7. A screen according to claim 6 wherein said discrete bodies are light-transmitting bodies and said matrix is a light-filtering binder of lesser transparency than said bodies.

8. A screen in accordance with claim 6 or claim 7, wherein said layer has a thickness corresponding substantially with the mean diameter of said bodies.

9. A screen according to any preceding claim wherein said discrete bodies are substantially spherical.

10. A screen according to any preceding claim wherein said discrete bodies are extended substantially equally in all directions in the plane of the screen.

11. A screen according to any of claims 1 to 8 wherein said discrete bodies are extended or elongated preferentially in one direction in the plane of the screen whereby the screen has asymmetric light-diffusing properties.

12. A method of forming a screen in accordance with any of claims 1 to 5, comprising forming a mixture comprising a plurality of discrete light-transmitting bodies and a plurality of discrete light absorbing or attenuating bodies in a fluid, light-transmitting matrix or binder, forming the resulting mixture into a thin layer or sheet, and causing or allowing at least said binder to set.

13. A method of forming a screen in accordance with any of claims 1 to 5 comprising compounding, in a molten or plastic state, a first light-transmitting thermoplastics matrix material with a second light-transmitting thermoplastics material insoluble in, and having a different refractive index from the first, and with a third thermoplastics material insoluble in the first, said third material

being light-absorbing or attenuating, the method further comprising extruding the resulting compound through a slot.

14. A method of forming a screen in accordance with any of claims 6 to 8 comprising compounding, in a molten or plastic state, two mutually insoluble thermoplastics materials one of which is a tinted, light-filtering material and extruding the resulting compound through a slot.

15. A method according to claim 13 or claim 14 wherein the material is extruded through an annular slot to form a tube which is blown, whilst the material is still at a temperature at which it is plastically deformable, to form a thin tubular film.

16. A method according to claim 15 wherein the tubular film is subsequently slit to form a thin sheet.

17. A method according to any of claims 1 to 5 comprising forming a mixture of a first, liquid settable, light-transmitting synthetic resin material, a second light-transmitting material insoluble in the first material and having a different refractive index from the first material, and a third light-transmitting material insoluble in the first material and being light-absorbing or attenuating, said second and third materials being in the form of discrete, finely dispersed bodies, the method including casting the mixture onto a support or mould and covering or allowing said first material to set in a thin layer or sheet.

18. A method according to claim 17 wherein one or both of said second and third materials is a liquid, at least during said mixing.

19. A projection, depixelating or the like screen, substantially as hereinbefore described with reference to and as shown in the accompanying drawing.

20. A method of forming a projection, depixelating or the like screen, substantially as hereinbefore described with reference to the accompanying drawing.

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